Summary of National Health Expenditure Account 2009 Comprehensive Revisions

The U.S. National Health Expenditure Accounts (NHEA) is an accounting matrix that presents health spending along two dimensions: spending for health care goods and services and the programs and other payers that purchase those goods and services.[i] To keep these accounts accurate and relevant, the scope, methods, and data sources used are periodically reexamined. Every five years the NHEA undergoes a comprehensive revision that includes the incorporation of newly available source data, methodological and definitional changes, and benchmark estimates from the U.S. Census Bureau's quinquennial economic Census.[ii] During these comprehensive revisions, the entire NHEA time series is opened for revision. In addition to changes in source data, methods, and definitions, during this comprehensive revision the classification structure of the NHEA matrix was revised to more clearly align programs and payers, allow the NHEA to more accurately reflect recent changes to the health care system, and to ensure a classification system that will facilitate analysis of future changes (see attachment 1). This document summarizes the changes in methods, definitions, and source data that were introduced for the 2009 comprehensive revision of the NHEA estimates.

In aggregate, revisions to the NHEA in 2007 increased spending by $43.8 billion. The largest upward revisions were to Other Health, Residential, and Personal Care ($41.9 billion), Other Third Party Payers ($19.7 billion), and Out of Pocket spending ($19.1 billion) (Attachment 2). The largest downward revisions were to Physician and Clinical Services (-$10.0 billion) and Nursing Care Facilities and Continuing Care Retirement Communities (-$5.9 billion) (see attachment 2).

Incorporation of data from the Economic Census

The NHEA categories of physician and clinical services, home health, nursing homes, dentists, and other professional services were all benchmarked to revenue estimates from the 2007 Economic Census. Spending for years between the 2002 and 2007 Economic Census data were interpolated using data from the Census Bureau's Service Annual Survey. Final merchandise line sales estimates from the 2007 Economic Census of the retail sector were incorporated into the prescription drug estimates.

Types of Services and Goods

Hospitals: The non-federal hospital spending estimate was benchmarked to the 2002 and 2007 spending levels from the American Hospital Association (AHA) Annual Survey. Growth for the intervening years (2003 – 2006) was estimated based on public spending program data and private spending trends from the AHA annual Survey and the Census Bureau's Service Annual Survey. Federal hospital spending levels were revised down due to a benchmark adjustment to Department of Defense (DOD) funding service distribution.

In addition, the distribution of workers compensation spending by service was revised resulting in revisions to hospitals sources of funding back to 1973. Smaller revisions to private health insurance, out-of-pocket, and other private spending, as well as state and local subsides were largely due to the estimation of these series as a residual (total hospital spending less public program spending).

Physicians and Clinical Services: The physician and clinical services estimate was benchmarked to the 2007 Economic Census and a new method of estimating professional fees was developed. Additionally, there was a revision to the DOD estimates of spending in clinics. Separate estimates of the services provided in physicians' offices and clinics were developed for 1998 to 2009 and are available on our website.

Dental Services: The dental services estimate was benchmarked to the 2007 Economic Census. Federal Dental spending levels were revised up due to a benchmark adjustment to Department of Defense (DOD) funding service distribution.

Other Professional Services: Total other professional services spending was revised back to 1966. These revisions included incorporation of the 2007 Economic Census and the reclassification of Medicare ambulance spending as Other Health, Residential, and Personal Care (OHRPC).

Other Health, Residential, and Personal Care (previously other personal health care): There were several changes to the other health, residential, and personal care (OHRPC) estimate during the 2009 comprehensive revision. The largest was the addition of spending in residential care facilities. This included the reclassification of Medicaid payments to Intermediate Care Facilities for the Intellectually Disabled (ICF/IDs) as OHRPC (previously included with Nursing Homes), the addition of non-Medicaid spending for ICF/IDs, and the addition of Residential Substance Abuse and Mental Health Facilities.

The second largest revision was caused by the addition of ambulance services to OHRPC. Prior to this comprehensive revision, the NHEA only captured ambulance services that were paid for by Medicare (previously included in Other Professional Services), Medicaid (OHRPC), and General Assistance (OHRPC). For the 2009 NHE, all ambulance services provided by private providers as well as Medicare, Medicaid, and General Assistance payments to public provider were included in OHRPC. Finally, there were several smaller changes that caused revisions to OHRPC, including an improved estimate of worksite healthcare and the addition of private schools to the school health estimate. (See attachment 3)

Home Health Care: The home health care estimate was benchmarked to the 2007 Economic Census.

Nursing Care Facilities and Continuing Care Communities (previously Nursing Home Care): Revisions to nursing care facilities and continuing care retirement communities include incorporation of the 2007 Economic Census, the reclassification of ICF/IDs as other health, residential, and personal care, and the addition of state and local subsidies as a payer for this type of spending.

Prescription Drugs: Retail prescription drug estimates were revised from 1998 to 2008 due to the incorporation of new (2007) and revised (2002) data from Economic Census. In addition, the price projection methodology used for average brand name and generic prices was reevaluated. As a result of this analysis brand name and generic price growth is now estimated using data from the National Association of Chain Drug Stores (NACDS). This price data is used in estimating out-of-pocket and private health insurance spending in the prescription drug estimate.

Durable Medical Equipment (DME): Revisions to total DME spending are the result of incorporating adjusted 2002 Input/Output data for Therapeutic appliances and equipment from Bureau of Economic Analysis (BEA). Additionally, Medicaid spending for DME, which previously was included in Other Personal Care, was reclassified as DME with the 2009 NHE estimates. Revisions to private health insurance and out-of-pocket were largely due to the estimation of these series as a residual (total DME spending less public program spending).

Government Administrations and Net Cost of Private Health Insurance: To be consistent with the new classification of the NHEA, estimates are shown separately for the net cost of private health insurance and for government administration for Medicare, Medicaid and other government plans.

Types of Payers

Health Insurance

Medicare: To be consistent with the new classification of the NHEA, estimates are shown separately for the net cost of private health insurance and for government administration for Medicare part C and D plans.

Medicaid: A new methodology was developed to account for prior period adjustments to Medicaid spending that is reported on the quarterly CMS-64 forms (Medicaid State agencies report their actual program benefit costs to CMS). These adjustments are made at the state level for payments that should have been made in an earlier quarter. To be consistent with the NHEA, these payments need to be recorded in the period in which the service was provided not when the payment was made. The new methodology, which adjusts the timing of these payments, caused revisions for the period 1997 to 2008. Additionally, estimates for Durable Medical Equipment, residential care facilities, and transportation services were developed and aligned with the proper services categories. Also, the Medicaid estimate now includes all state carve outs for dental services. Finally, to be consistent with the new classification structure, estimates are shown separately for the net cost of private health insurance and government administration, using ratios developed from AM Best data.

Children's Health Insurance Program (CHIP): The methodology used to estimate CHIP spending was changed to be more consistent with the Medicaid methodology, including using calendar year data and state level data to develop a national estimate.

Department of Defense (DOD): Changes made during the 2009 NHEA include incorporation of new service distributions for hospitals, clinics, and dental care (calendar year 1960 forward), revised estimates of administration (calendar year 1997 forward) and updated ratios of US only spending (calendar year 2003 forward).

Department of Veterans Affairs (DVA): Updated administrative cost data from the DVA was incorporated for 1998 to 2009. Additionally, estimates for domiciliary care were developed for 1965 to 2009 and allocated to other personal, residential and health care.

Other Third Party Payers

Workers' Compensation: The method for extrapolating the service splits of workers compensation was revised. The program data shares were extrapolated from 1974 using growth in NHEA service distributions.

Worksite health care (previously Industrial Inplant): The estimate of the number of covered individuals (from 1987) was updated using data from Mercer's Survey of Worksite Medical Clinics. In addition, the method used to extrapolate the 1987 spending was changed by replacing overall CPI with Physician CPI and a use and intensity adjustment was added.

Maternal and Child Health (MCH): The MCH estimates were revised from 1981 forward to reflect an updated method of distributing MCH spending to services. The new methodology extrapolates 1981 data using the growth in the NHE share to distribute MCH spending to services, excluding Medicaid's home and community based waivers.

Indian Health Service (IHS): The IHS estimates were revised from 1984 forward to reflect an updated method of distributing IHS to NHEA services. The new methodology extrapolates 1984 data using the growth in the NHE share to distribute IHS spending to services. Medicaid's home and community based waivers were not used in the NHE distribution applied to IHS.

School Health: For the 2009 Benchmark, the estimates were expanded to include private schools for 1960-2009. Previously the estimates had been for public schools only.

Philanthropy Administration: The philanthropy administration estimate reflects the administrative expenses associated with the health activities of philanthropic organizations; specifically, the overhead expenses incurred by donor organizations-those that channel money to providers or researchers. For the 2009 estimate, this spending has been removed since it was determined to be out of the scope of the NHEA.

Substance Abuse and Mental Health Services Administration (SAMHSA): The 2009 comprehensive revision incorporated new service distributions for hospitals, clinics, other residential and personal care for years 1975 to 2009 based on growth in NHEA shares.

Investment

Non-commercial Research: A revised estimate of private spending was developed, using a new source of data, the Urban Institute, for the period 1998-2009.

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[i] For a full description of what is contained in the National Health Expenditure Accounts see: Definitions, Sources and Methods: http://www.cms.gov/NationalHealthExpendData/downloads/dsm-09.pdf

[ii] The Economic Census provides a detailed portrait of the economy once every five years.

Attachment 1 - Classification of the National Health Expenditure Accounts (NHEA)

As a part of the 2009 comprehensive revision of the National Health Expenditure Accounts (NHEA), the National Health Statistics Group (NHSG) reviewed the classification structure of the NHEA and revised it to more appropriately reflect expenditures in the health sector. Historically, the NHEA has measured health spending by the goods and services that are purchased as well as by the "sources of funds" that pay for care. The prior structure of the NHEA classifies all "sources of funds" dollars as either public or private. This distinction was more meaningful for earlier years covered by the NHEA when the financing of health care was more directly linked to a single payer.

As the health sector has evolved, financing arrangements have become more complex and the lines between public and private payers have become blurred as a single program may have Federal, state and local, and private funding. For example, the Workers Compensation program is state mandated program that is funded by private business. However, in the prior classification structure that required programs and payers to be classified as public or private, workers compensation was classified as a state and local public program. As this example shows, the requirement to classify a program's spending as either public or private eventually made the distinctions become unclear and in some cases arbitrary.

We also looked at anticipated future changes to the health care system. The health insurance exchanges established through the Patient Protection and Affordable Care Act of 2010 (ACA) highlight the difficulty in making distinctions between public and private spending. These exchanges are expected to be set up and run by state governments to assist in the purchase of insurance from private companies, but will be financed with a mix of household, federal government, and employer funds. Low-income enrollees will receive significant government subsidies to purchase private insurance from the exchange. These types of classification issues are present for non-exchange programs as well. For example, government-subsidized retiree coverage and credits to small employers for offering employer-sponsored insurance (ESI) were classified as "private", while worker's compensation coverage purchased by private companies through private insurers were classified as "public." This increased complexity in the financing of health care spending raises important questions about the usefulness of the public and private classification in the core historical NHEA tables.

In addition to the new core NHEA table, there will be an expanded focus on NHE by sponsor. The sponsor analysis, which shows health spending by business, households, and governments, provides a more accurate picture of private and public funding of health care expenditures. In addition, we will also use sidebar tables as needed to provide users with helpful analysis on specific subjects especially as provisions of ACA are implemented.

Previous table structure

Below is the previous NHEA table structure. Under this structure, health spending was categorized as either private funds (consumer payments and other private funds) or public funds (Federal funds and state and local funds). In the past, health spending in the National Health Expenditures Accounts was defined as follows:

> National Health Expenditures: represents health care spending in the aggregate. National Health Expenditures equals Health Services and Supplies plus Investment.
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> Health services and supplies: represents spending for all medical care rendered during the year and was the sum of personal health care expenditures, government public health activity, and program administration and the net cost of private health insurance.
>
> Personal Health Care Expenditures: represents spending on therapeutic goods or services rendered to treat or prevent a specific disease or condition in a specific person.
>
> Government public health activity: represents spending by governments to organize and deliver health services and to prevent or control health problems.
>
> Program administration and the net cost of private health insurance: represents spending for the cost of running various government health care programs, and the difference between premiums earned by insurers and the claims or losses incurred for which insurers become liable (the net cost of private health insurance).
>
> Investment: includes spending for noncommercial biomedical research and expenditures by health care establishments on structures and equipment.

Current table structure

Below is the current NHEA table structure. This new structure reorganizes and renames the major sectors in the National Health Expenditure Accounts to the following:

> National Health Expenditures: no change in definition; is the sum of health consumption expenditures and investment.
>
> Health Consumption Expenditures (previously Health Services and Supplies): represents spending for all medical care rendered during the year and is the sum of personal health care expenditures, public health activity, government program administration, and the net cost of private health insurance.
>
> Personal Health Care: no change in definition; represents spending on therapeutic goods or services rendered to treat or prevent a specific disease or condition in a specific person.
>
> Government Administration: represents spending for the cost of running various government health care programs including state expenditures related to setting up the health insurance Exchanges and administering certain other provisions in ACA. This

category will include the cost of the Department of Health and Human Services (HHS) run high risk pools.

Net Cost of Private Health Insurance: the difference between premiums earned by insurers and the claims or losses incurred for which insurers become liable. This category also includes the net cost of private health insurance for plans that provide health insurance for government beneficiaries (for example, Medicare Advantage, Medicaid managed care plans, and TRICARE).

Public Health Activities: no change in definition; represents spending by governments to organize and deliver health services and to prevent or control health problems.

Investment: no change in definition; represents spending for noncommercial biomedical research and expenditures by health care establishments on structures and equipment.

Research: no change in definition; covers healthcare research conducted by non-profit entities, including research funded by the federal and state governments, by universities, and other nonprofit philanthropies such as foundations, societies, and even by individuals.

Structures and Equipment: no change in definition; expenditures for the acquisition of structures and durable equipment by establishments in the medical sector, including the value of new construction put in place and the value of new equipment purchased or put in place.

The current structure reclassifies the "sources of funds" or "payers" of health care in a way that is more reflective of the current and expected future organization of the U.S. health care system. As the health care system has changed over time, the line drawn between public and private has become less clear. Public programs have increasingly contracted with private companies to provide health care coverage. For example, Medicare, through the Medicare Advantage program, contracts with private managed care companies to provide health care coverage for some Medicare beneficiaries.

The core NHEA table reflects changes in the health care system that have occurred over the last few decades and will be flexible enough to show the upcoming changes to the US health care system expected in the future. The categories in the core table structure are defined as follows:

Out-of-pocket spending:

This sector consists of direct spending by consumers for all health care goods and services. Included in this estimate is the amount paid out-of-pocket for services not covered by insurance and the amount of co-pays, coinsurance and deductibles required by private health insurance (including provider payments covered by Health Savings Accounts) and by public programs such as Medicare and Medicaid (and not paid by some

other third party).[1] This category would exclude cost sharing subsidies provided by the government. This definition is the same as the previous classification.

Health Insurance:

This is health care coverage that is purchased through the private insurance market or provided by government programs. Typically these programs provide full medical coverage for individuals, with the exception of some supplemental plans (Medigap, Dental, or Vision insurance plans.) The insurance plans in this category include employer-sponsored private health insurance, Exchange plans (purchased by individuals and by small groups), Medicare, Medicaid, TRICARE, and Veterans Health Administration benefits. Individuals covered by these types of insurance plans are generally considered to have qualified health insurance coverage under ACA and are not subject to penalties and fees.

Private health insurance expenditures: Includes employer-sponsored insurance, Medicare supplement plans, and payments for the health portion of property and casualty plans and will also include exchange plans. Retiree drug subsidies (RDS) paid to employers by the Medicare program, subsidies for the under-65 retirees, and cost-sharing subsidies paid through insurance companies are also included with estimates of private health insurance. Separate estimates of private health insurance premiums and subsidies will be available in sponsor analysis.

Medicare: Medicare was implemented July 1, 1966 under Title XVIII of the Social Security Act and designated "Health Insurance for the Aged and Disabled". Originally, Medicare covered most persons age 65 or over, but was expanded in 1973 to include persons entitled to Social Security or Railroad Retirement disability cash benefits, persons with end-stage renal disease (ESRD), and certain otherwise non-covered aged persons who elect to pay a premium for Medicare coverage.

Medicaid: Medicaid was authorized by Title XIX of the Social Security Act in 1965. Medicaid (a federally and state-funded program) is the primary insurance program for low-income and high-need population. As of 2009, Medicaid covers about 45.7 million Americans (48 percent are children, 23 percent adults, 18 percent disabled, and 10 percent elderly). Medicaid covers a diversified, complex population (pre-term births, foster care children, spinal cord/traumatic brain injuries, mental illness, intellectual disabilities, and Alzheimer's disease) with key services such as EPSDT (Early Periodic Screening, Diagnosis, and Treatment), mental health services, transportation, and institutional care.

[1] Out-of-pocket spending by type of insurer is being investigated as a possible sidebar estimate for NHEA.

Children's Health Insurance Program (CHIP): A joint federal/State program that provides health insurance for children in families that do not have health insurance coverage and are not eligible for Medicaid. CHIP was created in 1997 with the enactment of the Balanced Budget Act of 1997 (BBA97) with the explicit goal of reducing the number of children without health insurance (P.L.105-33). The BBA97 gave States the option to set up new independent health insurance programs for children, to expand existing State Medicaid programs to insure children now eligible for health insurance coverage under CHIP eligibility standards, or to use a combination of new CHIP programs and Medicaid expansions.

In the NHEA, the estimates of spending under the CHIP program are in two parts. First, the new CHIP programs are estimated as independent government programs and are included health insurance. Second, the Medicaid expansion programs are estimated independently of the remainder of the Medicaid program.

Department of Defense: The Military Health System (MHS) consists of the medical services of the Army, Navy (including the Marine Corps) and Air Force, the TRICARE Management Activity, and the Office of the Assistant Secretary of Defense for Health Affairs. As of 2009, the MHS provides health care services to approximately 9.3 million eligible beneficiaries – Active Duty, Reserve and National Guard Soldiers, Sailors, Marines, Airmen, and their family members, plus military retirees and their family members.

Department of Veterans Affairs: The Department of Veterans Affairs (VA) provides compensation and pensions for military veterans and their survivors, as well as medical care for veterans. Historically, the VA's health care mission has been to treat veterans with service-related health problems and low incomes, and those needing special services. Today, the VA's health care system focuses on preventative care. The VA health system possesses some unique advantages because they are able to treat a patient throughout their entire life; therefore, they can focus on prevention and primary care, knowing they will benefit in the long run.

Other third-party payers and programs:

This category includes other targeted health care programs that provide care or treatment of disease as its primary focus and includes Federal, state and local, and private programs. These programs, such as Workers Compensation, Maternal and Child Health, Indian Health Service, General Assistance, Vocational Rehabilitation, Substance Abuse and Mental Health Services Administration (SAMHSA), School Health, State and local subsidies to providers, Temporary Disability Insurance, Other Private Revenues and General Hospital and Medical Not Elsewhere Classified, provide services on a limited

basis to a specific population. These programs would not be considered qualified "health insurance" under ACA.

The services and goods definitions have not changed as a result of the change in classification. However, the new classification does change the way that program administration and the net cost of private health insurance are presented. As noted above, the new core NHEA table will show the government program administration and net cost of insurance separately for those government programs that contract with private providers (such as Medicare and DOD) and for the exchanges.

Attachment 2 - 2007 Revisions and Cause of Revision

	2007 Revision to NHE (in billions)	Primary Cause of Revision
Type of Services		
National Health Expenditures	$43.8	
Health Consumption Expenditures	45.4	
Personal Health Care	37.9	
Hospital Care	-0.8	Decline in federal spending due to adjustment to DOD
Physician and Clinical Services	-10.0	Benchmarked to 2007 economic census
Other Professionals	-2.7	Benchmarked to 2007 economic census, and moving Medicare ambulance to OHRPC.
Dental Services	1.0	Benchmarked to 2007 economic census, addition of DOD facilities
Other Health, Residential, and Personal Care (OHRPC)	41.9	
Residential Care Services (including ICF/ID's)	34.5	Added residential care estimate
Ambulance Services	12.0	Added estimate for private ambulance and also includes Medicare
Other	-4.5	Reclassifying Medicaid DME, and Worksite Healthcare change
Home Health Care	-1.5	Benchmarked to 2007 economic census
Nursing Care Facilities and Continuing Care Retirement Communities	-5.9	Benchmarked to 2007 economic census, reclassifying ICF/ID
Prescriptions Drugs	3.4	Incorporation of revised 2002 and new 2007 Economic Census
Durable Medical Equipment	8.8	Benchmarked to BEA's 2002 I/O, and reclassification of Medicaid
Other Non-Durable Medical Equipme	3.6	
Administration	3.5	
Public Health Activity	4.0	
Investment	-1.7	
Research	-0.6	New source was developed for the estimate of private spending on research
Structures & Equipment	-1.1	
Type of Payer		
Total	43.8	
Out of Pocket	19.1	Reflects revisions in total spending and in other sources
Health Insurance	2.2	
Private Health Insurance	4.1	Reflects revisions in total spending and in other sources
Medicare	-0.7	
Medicaid	-1.9	Methodology changed to include prior period adjustments
Total CHIP (Title XIX and Title XXI)	0.0	
Department of Defense	0.5	New DOD distributions
Department of Veterans' Affairs	0.1	Updated data for VA admin costs
Other Third Party Payers	19.7	
Worksite Healthcare	-1.9	Reduced the number of covered individuals, physician CPI is now used to move cost per employee, and use and intensity adjustment is now included.
Other Private Revenues	8.7	Increase due to the addition of residential care and ambulance
Indian Health Services	0.0	New method on distributing services
Workers' Compensation	2.4	New method on distributing services
General Assistance	-0.2	
Maternal/Child Health	0.1	New method on distributing services
Vocational Rehabilitation	0.0	
Other Federal Programs	0.1	
SAMHSA	0.0	New method on distributing services
Other State and Local	10.1	Addition of state and local subsidies for residential care,
School Health	0.4	Addition of private schools in school health estimate
Public Health Activity	4.0	
Structures & Equipment	-1.1	

Note: All estimates were revised due to more recent data which are reflected in the revisions above. We only identified the major benchmark changes. Also some of the revisions are offsetting so the amount shown above is net all changes.

Attachment 3 - 2007 Revisions and Cause of Revision of Other Health, Residential, and Personal Care

	2007 Revision to NHE (in billions)	Primary Cause of Revision
Other Health, Residential, and Personal Care	$41.9	
Residential Care Services (including ICF/ID's)	34.5	
Out Of Pocket	5.5	
Private Health Insurance	1.3	
Other Private Revenues	6.7	
Other State and Local Programs	8.3	Used Census data to estimate
Medicaid	12.6	Reclassification of ICF/ID's
Ambulance Services	12.0	
Out of Pocket	2.1	
Private Health Insurance	3.7	
Other Private Revenues	2.3	
Medicare	3.9	Shifting Medicare ambulance from other professional services
Other	-4.5	
Worksite Healthcare	-1.9	Worksite healthcare benchmark changes
Other Federal and State and Loca	0.4	School health changes
Other	-3.1	Redistribution of service allocation by payers such as shifting a portion of Medicaid spending to DME

Note: All estimates were revised due to more recent data which are reflected in the revisions above. We only identified the major benchmark changes. Also some of the revisions are offsetting so the amount shown above is net all changes.